

**REMARKS**

In the office action mailed May 4, 2006, the examiner raises for the first time considerations based on 35 U.S.C. § 101 whereby the claimed invention lacks utility.

Specifically, the examiner objects to the "coding data container" referred to in some of the claims. The examiner asserts that the data container is not functionally related to hardware and software elements of a computer system such that an output result is produced, and thus, does not have a useful, concrete and tangible result following the *State Street* rationale.

The non-withdrawn claims which recite a "coding data container" or simply a "data container" are claims 1, 4-6, 16-30, 75-89, 93-94 and 96-110.

Because claims 11, 14-15, 74, 90-92 and 95 does not contain the "coding data container" language, it follows that claims 11, 14-15, 74, 90-92 and 95 are not objected to under 35 U.S.C. § 101 insofar as the phrase "coding data container."

The applicant does not agree with the examiner's objection. However, in order to move forward in the prosecution of the application, independent claims 1, 77 and 98 have been amended to specify that the "coding data container" is provided as a portion of a storage unit. Similar changes have been made in dependent claims 16, 18, 75, 93 and 96 for consistency.

The "coding data container" is thus related to a hardware element, namely a storage unit. An output result which is produced is that the claimed method and computer program product provides efficient physical access to the storage medium when performing various manipulations of input integer lists in a computer system, for example in the context of database query processing. This is a useful, concrete and tangible result under *State Street*.

Reconsideration of the 35 U.S.C. § 101 rejection of claims 1, 16, 18, 75, 77, 93, 96 and 98 and of the claims which depend therefrom is respectfully requested.

Regarding independent claims 11, 74, 90, and 95, the office action fails to provide a reason for the objection. Furthermore, Applicant fails to notice any basis for the objection of claims 11, 74, 90, and 95 under 35 U.S.C. § 101.

Independent claims 11 and 74 are directed to methods of encoding integer lists in a computer system. Thus, these claims recite hardware structure, namely a computer system. Coding the data layers produces a useful, concrete and tangible result, in particular, processing of integer lists in various applications (such as the database management

applications discussed at length in the specification) run on the computer system is made more efficient.

Independent claims 90 and 95 are directed to computer program products having instructions for controlling the steps of the methods claimed in claims 11 and 74. Such subject matter is statutory at least for the same reasons as that of claims 11 and 74.

None of the claims of the present application is directed to one of the three categories of subject matter that are identified by the Supreme Court as unpatentable, namely "laws of nature, natural phenomena, and abstract ideas." *Diamond v. Diehr* (1981).

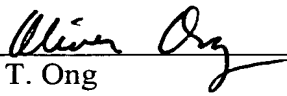
**CONCLUSION**

It is respectfully submitted that the present response overcomes all the rejections made in the outstanding office action. The application is believed to be in condition for allowance.

Prompt allowance of the application is respectfully requested.

Respectfully submitted,

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